

Appln No. 10/731,710
Amdt date April 5, 2007
Reply to Office action of January 5, 2007

REMARKS/ARGUMENTS

The above amendments and these remarks are in response to the Office action mailed on January 5, 2007. Claims 1, 4, 5, 7-11, 15, 17, 21-26, 28 and 34 have been amended for clarity. Claim 36 has been added and is directed to subject matter disclosed in the application as originally filed. No new matter has been added. Claims 1-11, 13-34 and 36 are now pending in this application. Reconsideration on the basis of the amendments and remarks below is kindly requested.

The Examiner rejected claims 1-11 and 13-33 under 35 U.S.C. §103(a) as being unpatentable over Cho, U.S. Patent No. 4,534,934. The Examiner also rejected claim 34 under 35 U.S.C. §102(b) as being anticipated by Cho, U.S. Patent No. 4,534,934. Claims 1, 21, 23 and 34 all require "providing a refractory metal enclosure having an inner peripheral surface;" and "wherein at least a portion of said metallic liner is sandwiched between said ultra hard material and said peripheral surface." Cho, according to the Examiner, discloses a refractory metal shield cup, the placing of diamond particles in the shield cup, and disposing Co discs in both sides of the diamond mass. According to the Examiner, the Co discs will provide a similar function as the claimed metallic liner. In other words, the Examiner has equated the claimed liner to the Co discs. However, at least a portion of the discs of Cho are not sandwiched between the ultra hard material and the inner peripheral surface of the shield cup as required by claims 1, 21, 23 and 34. The discs are sandwiched between the ultra hard material and the base of the shield cup and the ultra hard material and the top cover of the shield cup. Thus, Cho cannot render obvious claims 1, 21 and 23 nor anticipate claim 34.

Claims 2-11 and 14-20 are directly or indirectly dependent from claim 1. Claim 22 is dependent from 21. Claims 24-33 are directly or indirectly dependent from claim 23. Claim 36 is dependent from claim 4. As such, Applicants submit that these claims are allowable over Cho as being dependent from a claim allowable over Cho and for the additional limitations they contain therein. For example, claim 5 requires "wherein said liner defines an annular surface surrounding said ultra hard material." Cho does not appear to disclose a liner that forms an

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annular surface, surrounding the ultra hard material layer. Claim 17 requires "wherein said disposing a metallic liner within said enclosure comprises providing a strip of said metallic liner having opposed ends and spot welding said opposed ends to each other . . ." Cho does not appear to disclose a metallic liner which has opposed ends which are spot welded together. Cho, as alleged by the Examiner, just discloses Co discs. Claim 19 requires "wherein the liner forms a continuous peripheral layer around the entire periphery of the enclosure." Again Cho does not appear to disclose a metallic liner which forms a peripheral layer. Rather Cho discloses a Co disc. Claim 15 requires "during sintering the liner and at least a compound of the ultra hard material and the enclosure form a eutectic having a melting temperature in the range of about 1100°C to about 1410°C." Cho does not appear to disclose that his Co disc and the ultra hard material form a eutectic which has a melting temperature in the range of about 1100°C to about 1410°C. Furthermore, Cho does not appear to disclose, teach or suggest the melting temperatures of the eutectics as recited in various claims in this application. For example, claim 21 requires that "during sintering the liner forms a eutectic having a melting temperature and wherein the substrate forms a eutectic having a melting temperature, wherein the melting temperature of the liner formed eutectic is within 310° C of the substrate formed eutectic." Claim 25 requires that "during sintering, the liner, the enclosure and a compound of the ultra hard material form a eutectic having a melting temperature in the range of about 1100°C to about 1410°C." Claim 24 requires that "during sintering, the liner, the enclosure and a compound of the ultra hard material form a eutectic having a melting temperature lower than a melting temperature of a eutectic of the substrate material." Cho does not appear to disclose, teach or suggest any of these features. Thus, Applicants submit that these claims pending in this application are allowable over Cho on their own merit.

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The rejections to all claims pending in this application are believed to have been overcome and this application is now believed to be in condition for allowance. Should the Examiner have any remaining questions or concerns about the allowability of this application, the Examiner is kindly requested to call the undersigned attorney to discuss them.

Respectfully submitted,
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